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FARM POLICY ALTERNATIVES

- FIVE PAPERS PREPARED BY
STATE EXTENSION ECONOMISTS

The Papers Are:

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Farm Policy Background

Here are five papers dealing with farm policy alternatives and programs prepared by State Extension Economists.

The papers were prepared to provide objective background materials related to the farm problem and the policy alternatives. They are a long-time look at the alternatives, and some of the criteria farmers and the public need to consider in making their own decisions. These are made available to State Extension Services for adaptation and use in preparing discussion material for local situations and needs.

The papers were jointly sponsored by the Agricultural Policy Institute, N. C. State College; The Center for Agricultural and Economic Adjustment, Iowa State University; The Farm Foundation, Chicago, Illinois; and the Federal Extension Service, USDA.

The papers are the responsibility of the authors. No attempt has been made to alter their basic presentation, or to reflect changes in statistics since the papers were prepared.

I. The Farm Problem in the National Setting

by Wallace Ogg, Extension Economist
Iowa State University

Progress produces change. Change demands adjustment.

Americans from all walks of life have expressed interest in-- and concern for--the changes that have occurred, and adjustments that have been called for in such fields as: national survival, America's leadership in world affairs, economic stability and growth, and education appropriate for the future.

The persistence--and increasing cost--of the farm problem, along with Congress' preoccupation with it, is annoying and frustrating to the public.

The farm problem isn't just the farmer's problem.

True, it affects farmers most directly. But our nation's food and fiber supply is everyone's concern. So is its cost. And if national legislation and government costs are involved--as they have been for over 30 years--it is appropriately a concern of the entire American public.

ADJUSTMENT--THE PRICE OF PROGRESS

Throughout our economy the rapid and steady rise in available goods and services has been closely related to improvements in methods of production, which in turn, stemmed from the technical and scientific revolution. This progress has helped us achieve a high standard of living.

But this progress has produced other changes, too.

Industry has had to face production problems rising from the fast-growing level of output and the required increase in the size of the efficient firm. Industries--and workers in industry--have had to adjust to automation.

City governments have had to face the problems of urban redevelopment. Rural areas have had to adjust to new economic and social bases.

Since Americans have placed a high value on progress and abundance, they have had to face continuing change and make the needed adjustments.

The problems of adjustment to technical and scientific progress and the changes they have wrought are closely parallel throughout all sectors of our society and economy.

However, there are some unique characteristics to the farm problem.

With improvements in technology, agriculture has experienced an increasing ability to produce in abundance. Supply has grown faster than demand--in spite of population increases and higher income. This has resulted in a downward pressure on farm prices and income.

Then too, rapid changes in technology have left a backlog of over half our American farmers who--for one reason or another--have been unable to adapt and adjust to the new technology. This inability or failure to adjust is most commonly shown in the size of the farm. Over half our farms are too small for efficient use of their supply of labor and equipment. This creates imbalance in resources used in farming. Under these imbalanced circumstances, even high farm prices will not provide all farmers with income comparable to the growing nonfarm economy.

UNIQUE FEATURES OF THE FARM PROBLEM

The scientific revolution in agriculture is not an accident of the private enterprise system. It is the result of a deliberate public investment by the people of the United States. Many of the decisions to make this investment were made by nonfarm people. It has been fantastically successful.

Public investment in agricultural science began just about 100 years ago as the frontier dwindled. Large scale land development, consisting of both land settlement and reclamation, began about the same time.

These parallel activities expanded American agriculture and created little conflict in objectives before 1920. Population was growing rapidly, and at this stage in our development, demand for farm products provided higher per capita incomes. Also the process of research and development, given rapidly growing demand, provided more opportunities for young people in farming. What did not sell in the domestic market found a ready export market.

The Situation Changes After World War I

But since 1920, the situation has been different.

Population growth slowed down in the late 20's and the 30's.

The price and income elasticity of demand for farm products declined, and became relatively inelastic.*

At the same time, the accumulated knowledge of science began to be applied more rapidly.

From 1860 to 1920 technical progress had made it possible for one farm worker to feed one additional nonfarm person each 20 years. In the 20 years from 1920 to 1940, this increased from 7 persons to 10, as purchased farm inputs became more important. In 1960 one farm worker produced food and fiber for 25 other people. Capital substitution for labor has increased rapidly, until today, 66 percent of farm inputs are purchased.

Following World War I, the growth in supply began to persistently outrun the growth in demand.

With the exception of drought and war years, there has been almost continuous downward pressure on prices and income. The conflict between the public objectives of abundant food and fiber and the objectives of comparable incomes for farmers became apparent.

After World War II: Consensus on Farm Problem

Only in the post World War II period has the consensus developed on the nature of the farm problem: it is generally recognized that--as a result of rapid technical progress--too many total resources are devoted to farming.

The farm problem manifests itself two ways:

1. Prices of farm products are depressed as a result of excess production year after year.
2. There is also too much labor and equipment in relation to land on many farms.

This causes continual pressure for consolidation of farms. Those farms with too little land to fully use labor and machinery effectively are at a sharp disadvantage.

These sources of imbalance have caused an income problem in agriculture that is not well understood.

Estimates of average income for 1962 show per capita annual income (from all sources) at \$1,430 for the farm population--compared to \$2,440 for the nonfarm population. 1/

1/ "Farm Income Situation," Economic Research Service, USDA, FIS 189, March 1963.

* Price inelasticity of demand means that consumption of the product doesn't increase much, even when the price drops a great deal. Income inelasticity of demand means that if prices are stable and there is a great increase in income or purchasing power, consumption still doesn't increase a great deal.

About all these figures tell us, however, is that there is more poverty among farm families than in the nonfarm sector.

Income of the farm population has been persistently lower. Farmers earn only about half as much as nonfarmers.^{2/}

Farm income has inched upward the last few years. But--although it has been rising--the per capita annual income of the farm population still lags far behind that of nonfarmers.

WHAT'S HAPPENING TO FARMERS' INCOME

There is a clearer way to look at the farm income problem.

It breaks down about this way:

About 800,000 farmers have adequate-sized farms for modern machinery and technology. Out of this group a small proportion (possibly only 100,000) are innovators and excellent managers. With the substantial price and income support from farm programs--which is most effective for the whole group of larger farms--this innovating group has been demonstrated, by some limited research studies, to be doing fully as well as the rest of the economy.

Owners of the rest of the large farms are seeing their income stagnate even though they may have income enough to live fairly well. But with a large capital investment, they either receive little or no interest on their investment--or very low returns for their labor and management ability.

About 600,000 farms are commercial farms so small that labor and equipment are underemployed. Income, although stagnant, does not often constitute a serious welfare problem. But it has been quite low compared with the rest of the economy.

The remaining 1 million full-time farms are so small that these families are not only underemployed--unless they have considerable nonfarm income--they are poor. And their children experience the vicious cycle that poverty brings.

The plight of these poor families in farming, however, has its urban counterpart in all metropolitan--even small town--centers. There are hundreds of thousands of tiny, family-owned and-operated retail shops that are as obsolete to modern retailing as the small full-time family-managed and-operated farm is to American agriculture. These families are underemployed and their income is very low. The same kinds of needs exist to improve opportunities for their children.

^{2/} "Farm Income Situation," Economic Research Service, USDA, FIS 187, July 1962.

In addition to this total of 2.4 million full-time farm families, there are 1.2 million more that are part-time and semi-retired. Less is known about these farms. Probably their incomes more nearly approach comparability with their nonfarm counterparts.

These, then, are some of the manifestations of the income problem among farm families.

Even so, adjustment has been proceeding rapidly in American agriculture. The average annual net out-migration of farm families has recently been about 800,000 people. Since 1950 the number of farm units has declined about 100,000 per year. There is still too much labor on American farms to provide a per capita income comparable to the average of nonfarm workers.

THE FARM PROBLEM AS AN INCOME PROBLEM

The farm problem can be characterized as an income problem arising from two interrelated sources:

1. It is a price problem. Supply has grown faster than demand. The demand is inelastic. For example: demand is such that if supply were to increase 1 percent, free market prices must decline about 4 percent to clear the market.
2. It is a problem of resource imbalance that has kept constant income pressure on small farms.

And the farm problem persists because the forces of technical change have moved faster than farmers' adjustments.

THE SITUATION WITH PAST FARM POLICY

Past farm policy has dealt mostly with the price problem. Exceptions are educational programs (such as extension work and vocational training) credit, marketing, agricultural research, soil and water conservation programs, and--more recently--Rural Areas Development.

Price policy tended to follow a sequence. Commodity programs demonstrated that excess capacity was an overall farm problem--not a commodity problem--as cotton and wheat acreage diversions added to feed grain production and stocks. In the light of farmers' increased capacity to produce, price support (without effective production and marketing controls) resulted in stock accumulations. This led to the soil bank programs, designed to reduce surpluses, then to the feed grain and wheat programs.

At the support levels of recent years it has been estimated that annual output was 6 to 8 percent too high. The output of 1959 might be about right for estimated demand in 1965.

Wheat

Wheat production is probably farthest out of balance with demand. Even though acreage has been held down in recent years to 55 million acres (from the wartime high of over 80 million acres), almost one-third of all the wheat raised in the last decade has been either added to stocks, or disposed of outside commercial markets through programs such as Food for Peace or Public Law 480. Stocks on July 1, 1962--down for the first time in several years--stood at 1.3 billion bushels.

The adjustment problem in wheat is especially difficult. At present support prices, wheat can only be used economically for human food. It is about 70 cents a bushel too high to compete with other grains for feed. And feed grain producers do not want excess wheat added to already surplus feed supplies.

Grass, is the next best production alternative to wheat, in many major wheat areas. However, the consequences of shifting from wheat to grass would bring about a drastic reduction in the economic base that supports communities in the wheat area.

Wheat does have the advantage that it can be disposed of effectively in our economic assistance program and actually contribute to our foreign policy.

Feed Grain

While the adjustment problem in feed grain may be somewhat less difficult than wheat, it is by no means simple.

Diversions from wheat and cotton acreages were a factor in the increase in feed grain stocks from 20 million tons in 1952 to 85 million tons in 1961. Acreage diversions and the stocks are with us. Feed grain stocks do not have ready use, as does wheat, in our aid programs. The market for feed grain is livestock, and livestock products in quantity can only be afforded by developed nations.

In spite of excellent crop weather, the 1961 Feed Grain Program was moderately successful in reducing stocks for the first time in a decade. Stocks in October 1962 were down 14 million tons from last year.

Cotton

Even with a considerable amount of regional shifting in production under current programs, cotton is faced with less difficulty than feed grains and wheat. Considerable diversion from cotton and regional shifts in cotton production have taken place.

The world market for cotton and the domestic demand have been such that up until 1962-63, stocks have been reduced. Export subsidies have helped the movement of cotton abroad.

However, the increased production and use of synthetic fibers, increased cotton textile imports and nearly stable exports have recently resulted in an increased cotton carryover.

For the first 6 months of 1962, total synthetic fiber production was 28 percent over a year earlier and cotton textile imports were up 90 percent for comparable periods.

Cotton is believed by many to be "heading for trouble" under present support programs.

III. Evaluating Farm Program Alternatives

by George S. Abshier, Extension Economist
Oklahoma State University

In the formulation of policy to deal with public problems in the political environment of representative government, certain factors must be recognized.

There must be clear understanding by policy makers of the nature of problems and the contemporary situation. They must also understand economic and other relationships.

And the interested voting public must sufficiently understand these facts so that public opinion will help shape policy based on facts.

Given this kind of understanding there will be considerable consensus on objectives for policy.

But more than an understanding of facts is needed if there are to be effective policies to deal with the farm problem. Compromises will be necessary.

There are serious conflicts of interest and deep-seated value positions which may be difficult to compromise.

In order to evaluate any proposed farm program, we need some kind of criteria for judging.

SOME ECONOMIC FACTORS WHICH LIMIT AGRICULTURAL ADJUSTMENT

The total consumer demand for agricultural products is relatively inelastic. Consumption is relatively fixed (except for increases in population) and is quite unresponsive to price changes. At the same time, consumers are fairly willing to substitute one agricultural product for another with relative price changes.

Farm production is responsive to price increases. As a result, price increases can effect substantial increases in agricultural output--weather and other uncontrollable factors being equal. Usually output is less responsive to declining prices than to rising prices.

If prices are supported above the free market level without controls or adjustment of resources, production will increase and there will be a build-up of stocks.

Production controls on some commodities--without controls on others--result in the shifting of resources. As a result, problems of over-production spread to uncontrolled commodities.

A level of price support tied to a specific base does not necessarily mean a stable relative position for farmers, because of swings in the business cycle and relative changes in efficiency of production.

Agricultural programs do not have the same impact on all levels and all types of farming. Some of the past programs have had different effects on large and small farms. Thus, variations in programs may be necessary for commercial, noncommercial and subsistence farms.

Agricultural production is more subject than manufacturing to external effects, such as weather.

Since there is a longer lag in agriculture from the planting or breeding period to the final product, agricultural production is less adaptable to seasonal, annual, or cyclical price changes than manufactured production.

Monopolistic restrictions in agricultural enterprises are not as effective as similar restrictions in other areas, because the large number of production units make it difficult to control quality and quantity of farm commodities.

Farm prices do not bear a constant relationship to consumer prices. With added marketing services, most farm-consumer price relationships have changed materially in the last few years.

Farming is not adaptable to business cycle downswings, due primarily to fixed investments in equipment and land, and to lack of alternative opportunity of labor and management.

Agricultural programs have international--as well as national and local--impacts. With the tremendous quantity of exports and with the world price differentials, any agricultural program that materially affects the world market price for a commodity has an international impact.

Independent, efficient family farm units are often considered to be the most economical type of production unit for many commodities. Sometimes there is disagreement over what constitutes an efficient family farm unit.

OBJECTIVES ON WHICH THERE IS GENERAL AGREEMENT

It is generally agreed that agricultural programs should contribute to the prosperity and stability of the national economy.

There is also a general agreement that agricultural programs should provide a safeguard against disaster in the agricultural sector. In many of the agricultural or rural areas of the country, a depressed agricultural economy influences the entire economy of an area. It is sometimes argued that an agricultural depression would spread to other segments of the economy.

There is also general agreement on the following:

Agricultural programs should protect the national economy against shortages of either food or fiber. (The level of storage stocks is, however, subject to debate.)

Agricultural programs should be designed to cure--and not aggravate--the condition which exists. Neither should they make the condition chronic.

Agricultural programs should be operated at a minimum cost to society. (This objective is usually manifested in concern for keeping the treasury cost as low as possible, consistent with income goals for farmers.)

Farm production resources should earn returns comparable to other segments of the economy. (A major difficulty lies in the measurement of economic and social returns.)

Agricultural programs should not be wasteful of natural resources.

Most people share, to some extent, certain other objectives, such as maximum contribution to society from all members; development of youth for their future responsibilities; stability of property values; and strong rural communities and institutions.

CONFLICTS OF INTERESTS

Some objectives are highly dependent on individual or group interests. For instance:

Commercial farmers with adequate sized farms are primarily concerned with the price problem in farming. As they adopt new technology and increase output, they are concerned with the resulting pressure on prices and incomes. They want price and income protection.

Farmers with small, inadequate sized farms are concerned with their low income and unfavorable alternative opportunities. They are interested in price policy but also in policy that will improve their opportunity and especially their children's, either in--or out of--agriculture.

The Federal Government is interested in how to reduce costs, criticism, opportunities for graft and complexity of administration.

Agribusiness firms are interested in maintaining farmers' income and level of production to maintain a high level of demand for agribusiness services.

Communities in rural areas are concerned with maintaining the economic base for maintaining the community.

Consumers are interested in an ample supply of food, fiber and tobacco of high and dependable quality at low cost.

Politicians are interested in how best to compromise the several conflicts into a program that will help alleviate the problem.

There is more agreement on what the problem is than on how to solve it.

However, agreement on the problem is the first, major step toward solution.

CONFLICTS OF BASIC VALUES

Most of the disagreement is due to conflicts in the basic value systems of individuals or groups who are advocates of a particular alternative.

These conflicts center around such points as:

The degree of government restriction of decision-making on individual farms.

The importance of price competition to the free-enterprise system.

The importance of adjustment for economically efficient allocation of resources to promote economic growth.

The social costs of adjustment to economic growth in agriculture.

These demonstrate that although we appear to have made the important first step toward solution (agreement on what the problem is) we're perhaps a long way from consensus as to the best method for solving the farm problem.

CRITERIA FOR JUDGING AGRICULTURAL PROGRAMS

The criteria used to measure any program will vary, depending on your viewpoints, values and interests. Therefore, the importance of criteria will vary. However, you can successfully apply most of the

following to any alternative farm program to be considered. You may think of other criteria to add to these.

Effects on Farming

What would be the effect on farm income, both to the individual farmer and to aggregate farm income? For one year? Over the long run?

Will it improve--or impair--efficiency of farm production and marketing?

What is the effect on efficiency of resource use and conservation?

What's the effect on the price of land?

Does the program solve the basic cause of maladjustment in agriculture or does it just alleviate some of the symptoms? For example, does it eliminate the surplus or just isolate it through government storage?

What is the effect on production and price for other farm commodities?

Effects on the Agribusiness Sector

Does it transfer the problem to--or create new ones for--related industries?

What is the effect on efficiency of marketing and processing agricultural commodities?

Effects on Government

What's the treasury cost of the program?

How does it influence the relative cost and ease of administering the agricultural program?

Effects on Consumers

What's the effect on consumer prices?

How does it alter costs to consumers as taxpayers?

Will it permit or insure an adequate supply of high quality products?

Political, Social, and Other Economic Effects

How will the program affect price stability, overall economic progress and agricultural stability?

What is the interregional effect?

Will it affect world trade and foreign policy?

Does it help--or hinder--human adjustments and rural communities?

What's the political acceptability?

How does it affect freedom of enterprise choice and resource use?

USE OF CRITERIA IN POLICY DECISION-MAKING

Many of the yardsticks cited above may aid you in evaluating alternative programs. No single alternative will fully meet all the objectives desired by the individual or society. Therefore, the task in public decision-making is to arrive at a choice which provides the best compromise of conflicting effects to most nearly satisfy society's objectives.

Through careful study, you may establish an objective rating of the degree to which various alternatives meet a particular criterion.

However, the weights or importance you assign various criteria will differ--depending upon your objectives, values, and your economic position relative to the policy problem.

Suppose one alternative solution ranks high on one criterion. Considering your values, you might place a large weight on this point under some circumstances--or even a negative weight if you feel that you would be made worse off. You might even place a zero weight on this criterion if it is unimportant to you. (See Summary and Table II, in paper IV, for further explanation of this decision-making aid.)

It is difficult to conceive of any program which will meet all criteria to the satisfaction of the conflicting objectives of various people.

The compromising of these conflicts is, in fact, the essence of our political system.

III. Alternatives for National Farm Policy

by Wallace Ogg, Extension Economist
Iowa State University

We can assume that some programs related to agricultural commodities will likely continue in effect--regardless of the alternative programs selected for production or marketing control.

For example, the school lunch and milk programs have general benefit to society. Likewise, Public Law 480 and similar programs are ordinarily separated from deliberations on programs for agriculture in general. They will probably continue to be handled as separate programs.

It is generally conceded that some Federal program of agricultural storage is essential to take care of seasonal variations in productions and to provide against catastrophe. The desirable level for these storage stocks is a question of debate.

UNLIKELY ALTERNATIVES

Agricultural capacity to produce is currently increasing at a faster rate than is the capacity to consume - domestically or for export use. As long as these trends continue in the same relative ratio, we can't "eat our way out of the surplus."

There is the possibility of farmers voluntarily banding together to restrict production and get higher prices for their products. There is, however, the very practical difficulty of getting enough of the producers of the major farm products to restrict their output to have any substantial effect on total production or price without Government assistance. Another practical question is whether society would permit this kind of power in farmers' hands.

The possibilities in curtailing the use of capital, technology, research, or education in agriculture to slow down the rate of increase in productivity of agriculture and raise prices are also recognized.

The wisdom of proposals to restrict research can be questioned on the grounds that we may--in decades ahead or in the event of war--very much need the further gains in productivity of agriculture that research done now can make possible.

To restrict education or the use of technology or capital would repudiate the concept of the most efficient use of resources.

Most such proposals would also have very unequal effects on farmers. Take for example, restricting the use of fertilizer. It would give farmers who now use no fertilizer as much of the increase in price as farmers who now use a great deal of fertilizer. It would give them a greater increase in income. Proposals like this would put a premium on failure to innovate.

A VITAL DISTINCTION

In considering farm policy, a distinction needs to be made between annual income transfer programs of subsidies to improve the incomes of people in farming and basic policies of structural adjustment. In discussion of farm policy alternatives, these are often confused. The former deals with symptoms. The latter works with causes of the farm problem.

Consideration will be given to:

1. Programs designed to raise prices by reducing supply.
2. Programs which rely on free prices to achieve basic resource adjustment.
3. Programs designed primarily to promote resource adjustment to scientific progress and economic growth.

PROGRAMS TO RAISE PRICES BY REDUCING OUTPUT

Costs and adverse public attitude toward government stocks have made price support by stock accumulation politically unpopular. Price support much above free market levels without some kind of effective production or marketing control will not continue to be politically realistic.

This suggests that farmers may have to make a choice they have never faced before: price supports with effective output control--or no supports with unlimited production. The more difficult commodities are to store and dispose of, the stronger the sentiment of this kind. In terms of past programs, the declining order of aversion might be potatoes, meats, dairy products, feed grains, wheat and cotton.

If effective supply control is necessary, it must be recognized that it will:

- 1) Reduce the market for agribusiness services to agriculture. Without some form of compensation these firms will be made worse off as farms are made better off.
- 2) Increase underemployment of farm labor and equipment. As the pressure for farm consolidation is increased, this will probably reduce the number of farms and farmers.

Voluntary Supply Control

Programs of voluntary supply control must make it profitable for the individual farmer to curtail output. There must always be some criteria--such as the historical base--for control. These general criteria, while reasonably fair for most farmers, always create hardship for some. Voluntary participation (which permits these latter farmers to stay out of the program) leaves them no worse off as most farmers are better off.

By the same token, however, if there are any general benefits for all farms, such as generally higher prices, there is some incentive to stay out of the program, increase output and still reap some benefits.

As the level of price support increases, two problems must be faced:

- 1) Output per acre increases in response to higher prices.
- 2) Cost of securing voluntary participation rises.

The program becomes virtually unmanageable at high levels of support. High prices provide strong incentives for too many producers to stay out while enjoying some benefits. Differential price levels for participants and nonparticipants avoid this problem, but the differential level is hard to maintain. In the 1961 Feed Grain Program (which exemplifies the voluntary supply control) the differential was not completely maintained between participants and nonparticipants. Prices in the market tended to edge up, and a price differential could be maintained only by putting more government stocks on the market than were added to stocks by new storage. The 1963 program will achieve a price differential with production payments.

Supply Control by Compulsion

Compulsory supply control avoids the problem of nonparticipation mentioned above. The form of control may be either acreage allotments or marketing quotas.

Compulsory supply control (which in past programs has depended on a 2/3 majority in a producer referendum) requires either high price support or income rewards to assure a favorable vote.

If the high price support route is chosen, this reduces the treasury cost of obtaining a favorable vote but brings forth the problems high price supports create:

With higher prices there is an incentive to increase yields which tend to offset the effect of control of land inputs. This can be avoided if the price support is limited to a certain output per farm. For example, a farm that would normally grow 10,000 bushels under the program might be allowed to receive price support on only 8,000 bushels. This concept is embodied in the 1964 wheat program.

High price supports also complicate foreign trade negotiations. If customer nations buy without restrictions, high price supports limit our ability to compete for their market. If trading involves negotiating on import quotas, high price supports make a favorable quota more difficult to secure.

Perhaps the most difficult acceptance barrier for compulsory control is the effect on the "hardship" case (mentioned above) or the effect on farmers who want to shift enterprises. Even though such cases are subject to appeal, the final decision is sometimes unsatisfactory.

PROGRAMS RELYING ON FREE PRICES

Free prices are the traditional tool of the free enterprise system to achieve resource adjustment as changes in production conditions take place. Very often the opinion is expressed that farmers and the rest of the economy might both be better off if we returned farming to a free market.

Free prices have considerable appeal to some people as an alternative to the steady rise in cost of farm programs.

Free prices have strong appeal to groups who value the role of free prices in achieving economically efficient resource allocation and who strongly oppose government intervention and especially control.

In recent years, however, at least four different independent studies of free market prospects have been made under quite restrained assumptions (such as continuation of Public Law 480 support and insulating present stocks from the market). Considerable agreement appeared on the effect that such "free markets" would have on prices. These four studies indicated the free market price range for wheat would be from 74¢ to \$1.18 per bushel; and, for corn, from 66¢ to 98¢.

These studies cooled some enthusiasm for free prices. The ruthlessness of this kind of price decline on farmers is severe.

Price supports low enough to permit clearing the market--but high enough to protect farmers from instability of prices within a market year-- are one modification of a free price system suggested an alternative to compulsory control.

Another modification (which, at one time, was discussed in some detail) is free market prices with minimum direct income payments to farmers to relieve the severity of reduction in income.

PROGRAMS TO PROMOTE RESOURCE ADJUSTMENT

Resource adjustment programs usually suggest price support only as a transitional program while adjustment is taking place.

Land Adjustment

Most past program proposals have emphasized land use adjustment. The tools for such adjustment are either:

- 1) Land rental (Soil Bank, for example).
- 2) Purchase of easements to prohibit raising crops.
- 3) Purchase of cropland for the public domain.

There are variations, including the current emphasis for development of agricultural land for recreational purposes, under private and public auspices.

Any such program which seeks to achieve adjustment by land use adjustment must also provide for human resource adjustment--to avoid land values being bid up. Since the human, institutional and community adjustments will of necessity follow, such programs encounter strong resistance from communities where the programs will have their largest impact.

Human Adjustment

Programs can be--and have been--proposed which also provide for human, as well as land use, adjustment. Such programs rely heavily on full employment, education, and retraining.

Most such programs suggest transitional supply control and price support programs to ease the income effects of adjustment on farmers.

Social Costs of Rapid Adjustment Programs: The fact must be faced, however, that rapid land use and human adjustment cannot be achieved without severe social costs to individuals and communities.

Advocates often tend to underemphasize the importance of these costs:

- 1) Human adjustment frequently involves moving to a new community. If done on a large scale, it brings severe adjustment problems to communities and institutions within communities--both the communities that are moved out of, and moved into.
- 2) Individuals may undergo mild to severe cultural shock in the process of moving.
- 3) Individuals often must be retrained for new jobs.

General Adjustment

In paper I, we had discussed the process of economic adjustment to technical progress and change. It has much in common in farming and in the nonfarm economy.

The general resource adjustment approach deals with the problem of production-consumption imbalance in our economy as a whole. It includes human adjustment as well as other resource adjustment.

For an acceptable and workable approach to the farm problem, many maintain that it will be necessary to consider appropriate general adjustment policy, rather than a strictly agricultural adjustment policy.

Recent examples of general adjustment programs to be adopted are: Rural Areas Development, the Area Redevelopment Act, and the Manpower Development and Retraining Act of 1962, sections of the Food and Agriculture Act of 1962, etc.--all aimed at human and other resource adjustment in the whole economy--including agriculture.

Here is a brief consideration of some of the factors involved in general adjustment programs (some of these were considered separately under Land Adjustment and Human Adjustment):

Human resource adjustment is considered by many to be crucial in agricultural adjustment programs. Proposed Government action to facilitate movement of farmers out of agriculture requires at least two parallel types of activity:

- 1) promoting a higher level of general business activity and employment; and
- 2) providing training or retraining for other occupations.

Without land retirement accompanying human resource adjustment, land could be recombined into more efficient production units, with no decrease in output. Estimates have been made that at least 80 million acres, one-fourth of our present cropland, would have to be retired in order to more equally balance supply and demand at acceptable prices.

Marginal land would tend to drop out of production under a land resource adjustment program. Specialized, more productive areas would likely increase production because of a competitive advantage. There would be considerable pressure to expand scale of production to lower unit costs.

If desired, voluntary land retirement through government subsidy could be concentrated in areas of low productivity by differential payment levels. Free prices would tend to concentrate production of particular crops in the areas having the greatest comparative advantage. Extensive land retirement or shifting of cropland to grazing would have sharp impacts on communities in the areas involved.

A voluntary land retirement plan would have high initial costs to the Government. Over a period of years, costs would decline. Reduction

of CCC stocks might be difficult under these plans unless moved in noncommercial channels (such as foreign aid programs).

Programs such as voluntary land retirement could have serious political repercussions.

People in rural areas might resent the "forced" rapid changes in community institutions and movement of human resources. Such programs might also seriously lower aggregate farm income for a number of years, although payments for land retirement would tend to offset lower crop price.

Urban political forces would likely favor the adjustment toward gradually lower government costs for agricultural programs, but might resent the movement of additional labor into the nonfarm labor market.

Most general resource adjustment proposals offer a radical change from the historical pattern of government aid to agriculture.

IV. An Analysis of Policy Alternatives for Feed Grains

by Charles Pugh, Agricultural Economist
North Carolina State College

Feed grain policy is expected to continue as a major political and economic issue for agriculture, due to the current supply-demand problems in the feed grain and livestock industries.

Carryover stocks of the four major feed grains reached 85 million tons at the beginning of the 1961 marketing year.^{1/} Due to reduced acreage under the Emergency Feed Grain Program, inventories (85 percent of them under loan or owned by the Commodity Credit Corporation) fell 14 million tons by the beginning of the 1962 marketing year - the first decline in 9 years. Feed grain carryover in 1963 is expected to drop to 61 million tons.^{2/}

Corn carryover for 1962 was 1,640 million bushels--368 million bu. less than a year earlier. The 1962 sorghum carryover was 661 million bushels--39 million bu. less than a year earlier.^{2/}

Recent sessions of Congress have not found unified support for any single program as a long-term solution to the feed grain problem. It is clear that feed grain policy is likely to have widespread effect on agriculture as well as the general economy. This chapter describes some of the policy alternatives which have commanded major attention and examines their possible consequences.

POLICY ALTERNATIVES CONSIDERED

There is a wide range of possible programs which conceivably could be employed for feed grains. Most approaches would seek to affect prices and farm income either on the supply side or the demand side. It is likely that there will be some continuing (but moderate) effort to strengthen the demand for feed grains. However, this analysis is limited to some "price and income" program alternatives which would directly affect the feed grain supply.

The alternatives examined herein which affect the supply of feed grains include:

1/ Marketing year begins Oct. 1 for corn and sorghum grain; July 1 for oats and barley.

2/ "Feed Situation," Economic Research Service, USDA, FIS-197, Feb. 1963.

Programs to reduce the output of grain:

1. Voluntary diversion of grain land.
2. Mandatory acreage allotment.
3. Combination of allotments with voluntary diversion.

Conditions approximating free prices (in which market supply and demand relationships determine the quantity produced):

4. Free market with no restrictions or price supports.
5. Price supports at or near the long-run average prices with no restrictions on production.

The five policy alternatives will be examined according to effect on farming, the agribusiness sector, consumers, and government as well as other political, social and economic consequences.

No conclusion is reached on the "best" alternative. This is a decision that must ultimately be made by the public. The weight an individual attaches to each point of evaluation will depend on such things as his value judgments and his economic situation with respect to the feed grain-livestock complex.

There have been various broad "adjustment programs" proposed which are aimed at reducing total resources used in agriculture. Whole farm land retirement, incentives for farm people to seek nonfarm jobs and retraining for new employment are examples. Adjustments of this kind have occurred naturally over a period of years. A program to provide additional incentives would speed up this kind of shift. Incomes of people leaving - and people remaining in - agriculture could benefit. However, it would be difficult to separate their effects on the feed grain-livestock sector from the effects on other commodities.

Some bench marks for output-reducing alternatives vs. free markets may be established by comparing performance under the emergency feed grain program of 1961 with studies on the probable impact of a free market situation. Table I, page 24, shows these data for the U. S. by types of grain. To provide a point of comparison, the 1959-60 situation is also shown. Acreage planted in these 2 years provided the base for the 1961 program in which farmers could divert corn and grain sorghum land for payments. The 1959-60 program provided price supports for corn at 90 percent of the average market price in the 3 preceding years (but not less than 65 percent of parity); an acreage allotment program was not in effect.

Under the voluntary diversion program of 1961, price supports were raised to \$1.20 per bushel for corn or equivalent for other feed grains for producers who diverted as much as 20 percent of their base acreage of corn and grain sorghum. Payments in the form of certificates were also offered as incentive for diversion. The farmer could redeem his certificate in cash or in kind. If he chose payment in grain, government

stocks were reduced. If he cashed his certificate, the government was authorized to sell enough grain in the market to cover the cost of the certificate, thereby reducing government stocks. Savings in storage cost was an important consideration in this feature of the program. If the open market price for grain is well below the loan rate, there is an additional incentive for farmers to participate in a voluntary diversion program.

The data on the free market situation are taken from projections to 1965 as shown in the "Ellender Report."^{3/} By using projections to this date, the effects of free prices are more complete than in the first year of using this approach.

It can be noted in Table I that total feed grain production under a free market situation is estimated at only 5 million tons above the level achieved with the voluntary diversion program of 1961. However, production in 1959-60 was well above both of these alternatives. The total value of the 1961 crop is about 50 percent above the free market value due to higher prevailing prices and payments to farmers participating in the diversion program.

The information in Table I shows the results of an effort to restrict grain output as contrasted to the free market situation. Other output-reducing alternatives (such as allotments, or a combination of allotments with voluntary diversions) would provide a value of grain similar to the voluntary diversion program, if production was restricted to the same level and price supports were administered in such a way as to provide the same market price. Thus, the table indicates the effect of the five alternatives (given on page 22) on gross income of cash grain producers.

The feed grain program adopted by Congress for 1963 embodies the voluntary diversion approach which was used in 1961. However, some of the mechanics have been changed. For example, participating farmers will be able to place corn under nonrecourse loans at \$1.07 per bushel rather than \$1.20. In addition to receiving an incentive payment for diversion, participating farmers will receive a certificate redeemable at 18 cents per bushel for the normal production on the remaining acreage planted. The Commodity Credit Corporation will reimburse itself for the cost of the certificates by selling government-held grain at or above \$1.07 per bushel. This modification of the 1961 program illustrates that there are many possible techniques by which the Government can restrict grain output.

^{3/} Report from the USDA on Farm Price and Income Projections, 1960-65, under Conditions Approximating Free Production and Marketing of Agricultural Commodities, Senate Document No. 77, 86th Congress, 2nd Session, January 20, 1960.

Table I. Comparison of U. S. Grain Production and Value Under Voluntary Diversion Program of 1961 and Estimated Free Market Situation

	: Voluntary	: Diversion	: Free Market 2/
	: Base Years	: Program	:
	: (1959-60) 1/	: (1961) 1/	:
<u>Corn</u>			
Harvested			
Acreage (1000)	71,870	58,449	78,500
Yield (bu./A)	53.8	62.0	51.0
Production (1000 bu.)	3,866,334	3,625,530	4,000,000
Average price	1.02	1.08	.80
Value of production (\$1,000)	4,189,783	3,908,217	3,200,000
<u>Grain Sorghum</u>			
Harvested			
Acreage (1000)	15,497	11,026	10,500
Yield (bu./A)	37.9	43.8	32.0
Production (100 bu.)	587,539	482,015	335,000
Average price (bu.)	.848	1.01	.70
Value of production (\$1,000)	506,470	481,362	234,500
<u>Barley and Oats</u>			
Harvested			
Acreage (1000)	41,648	36,940	36,500
Production (tons)	27,903,272	25,678,424 3/	24,200,000
Value of production (\$1,000)	1,049,848	1,024,452	639,500
<u>All Feed Grains</u>			
Total harvested			
acreage-all feed grain (1000)	129,015	106,346	125,500
Total production of grains (tons)	152,611,716	140,626,292	145,575,000
Total value of feed grain (\$1,000)	5,746,101	5,419,031	4,074,000
Diversion payments (\$1,000)	0	781,864	0
Total value of crop (\$1,000) (inc. pmts.)	5,746,101	5,200,895	4,074,000

1/ Source: Policy and Program Appraisal Division, Agricultural Stabilization and Conservation Service, USDA.

2/ Estimated under Ellender assumptions for 1965. See footnote 3 on previous page.

3/ Bu. were converted to tons, rate of 32 lbs/bu. for oats and 48 lbs/bu. for barley.

Other methods which could be used include:

- (1) a mandatory acreage allotment, and
- (2) a combination of allotments with voluntary diversion.

Traditionally, national allotments have been set at the acreage required to obtain some national production target. Allotments can be allocated among farms according to their production history and price supports may be offered to cooperating producers. A combination of allotments and voluntary diversions could be used to avoid the "slippage" that occurs when nonparticipants in a voluntary program increase their acreage above their base. Setting each producer's allotment at his base acreage would assure that total plantings in grain were reduced by the number of acres diverted for payment.

A free market situation would involve no allotments or restrictions on production other than those dictated by the lower market price. However, it is possible to slightly modify the "free market" approach by offering price supports at or near the long-run average price. In this case, price supports could be used to reduce year-to-year variations in price rather than raise the price over a period of time. Public storage of grain could be built up during large crop years and reduced during small crop years to stabilize the price.

EVALUATION OF FEED GRAIN ALTERNATIVES UNDER SELECTED CRITERIA

Effect on Farming

The farm income effects of alternative feed grain policies might be different on three types of farms:

- (1) the cash grain producer,
- (2) the producer of livestock and poultry who purchases his feed inputs, and
- (3) the combination grain-livestock producer.

For example, any policy measure to raise cash grain prices may raise the cost of production for the livestock producer, while lower grain prices reduce costs per unit of livestock.

Income of the Cash Grain Producer: The general effect of alternative programs on the gross income of the cash grain producer could be demonstrated by comparing the total value of the feed grain crop (including supplementary payments under the alternative programs). The price support would set the prevailing market price under an acreage allotment program or a program combining allotments with voluntary diversions, if all producers are eligible for price supports. Under voluntary diversions, only producers who divert some minimum percentage of their crop are eligible for the price supports. Under free prices, the market price might be expected to fluctuate above and below 80 cents per bushel of corn, depending upon the size of the crop in

the particular year. Under a modified free market alternative, use of price supports and storage programs would allow this general price level to prevail in each year.

The price incentive for high yields is much greater under the output-reducing programs than under free prices. This effect is shown in the comparison of the 1961 voluntary diversion program with free prices in Table I. No doubt, farms with below-average yields participated heavily in the diversion. If an allotment were used to restrict a single input such as land, producers would use more fertilizer, seed and labor on the restricted input. However, even a guaranteed price at the long-run free market average might result in yields slightly above those in a purely "free-market" situation, due to the reduction in risk to farmers.

The value of production under the 1961 program is compared to free market estimates in Table I. Under voluntary diversions, cash grain producers' income is increased by supplementary payments. The average payment per acre diverted from corn and grain sorghum in 1961 was about \$31.

When a voluntary diversion program is used alone (as in 1961), noncooperators tend to increase their acreage over their base. In 1961, 25.2 million acres were diverted under a voluntary program. Total supplementary payments might have been cut about one-third from the performance if allotments had been used to prevent expanded plantings by farmers who did not reduce their acreage. Payments would have been necessary for only 17 million acres if nonparticipants were prevented from exceeding their base through the allotment feature. However, payments for diverted acreage may have to increase over time to hold production at a designated level, since yields tend to increase with the adoption of new technology.

Cost of producing grain may be expected to vary under the different policy alternatives. The production expenditures per acre under a free price situation would be considerably less than those under output-reducing programs. The higher per acre expenditure would occur under a restrictive program as more fertilizer, etc., is concentrated on the limited land.

Another aspect of production cost (relevant to evaluating policy alternatives) is the value of land. If a restrictive program is expected to raise income and to become permanent, land costs will rise. The added value of the crop, due to the program, becomes capitalized into the restricted input. Therefore, prices for land with a production history would be greater under restricting programs than in a free price situation.

Income of the Livestock and Poultry Producer: Grain is a cost item to the livestock and poultry producer rather than a receipt. With limited grain supplies, livestock production may be reduced, thereby forcing prices up. Net profits for livestock feeding, however, are still difficult to predict.

As shown in Table I, the production of feed grain under the voluntary diversion program of 1961 was estimated at approximately $140\frac{1}{2}$ million tons. Let us assume that total feed grain supply might be supplemented by $9\frac{1}{2}$ million tons from government stocks. That is, the total feed grain supply under such an output-reducing program would be approximately 150 million tons. Under the free market, an estimated production of $145\frac{1}{2}$ million tons plus $9\frac{1}{2}$ million tons from government stocks would provide a feed grain supply of 155 million tons.

At a constant grain feeding rate, the feed grain supply under the output-reducing program would produce $3\frac{1}{4}$ percent less total meat, milk and eggs than the free market supply. Possible substitution of forages for grain may mean livestock production may not be cut to this extent.

The relationship between a change in quantity of production and a change in price is denoted as the price elasticity of demand. Brandow ^{4/} estimates the price elasticity of demand for meat animals and poultry as -0.42, for eggs as -.23, for fluid milk and cream as -.145, and for evaporated and condensed milk as -.26. The earlier figures on maximum animal unit production indicate that $3\frac{1}{2}$ percent less livestock production could be obtained under the output-reducing programs than under free market. A price elasticity of demand of -0.42 indicates that the price of meat animals and poultry at the farm level rises about 2.4 percent for every 1 percent drop in quantity available. Therefore, livestock prices in the aggregate might be 7-3/4 percent higher when feed grain production is restricted (as in 1961) than they would be under free prices. Since the price increase is greater than the drop in output, gross income from livestock when grain output is restricted would be $4\frac{1}{4}$ percent above the level achieved under free price.

Since there is uncertainty on the nature of demand for all livestock, dairy, and poultry products taken together, under what conditions would the livestock, dairy, and poultry producers be as well off when grain production is restricted at the 1961 level as under free prices? Some estimates can be made on how inelastic demand for livestock, dairy, and poultry products would have to be to maintain the same net income from feeding activities under alternative programs.

The farm value of livestock production under free prices is estimated at \$17.7 billion in the "Ellender Report." This value would have to be increased by about \$1.3 billion to offset the higher feed cost under a grain-restrictive program similar to the 1961 program in which corn sold for \$1.07. (See Table I.) This figure is 7-1/3 percent above the estimated free market value of livestock production.

^{4/} G. E. Brandow, Interrelations Among Demands for Farm Products and Implications for Control of Market Supply. Bulletin 680, Pennsylvania Agriculture Experiment Station, August 1961, P. 6.

Since the volume of production, as estimated above, might be $3\frac{1}{4}$ percent less under a grain restrictive program, the price of livestock would have to be 11 percent above free market prices. Thus, to maintain livestock income above feed costs at the same levels, the demand would have to be more inelastic than Brandow's estimate of all meat and poultry used above--in fact, as low as -0.3. In other words, the price would have to increase 3-1/3 percent for each 1 percent drop in production of livestock and livestock products in order to obtain the same income above feed costs.

If the prevailing price per bushel of corn was allowed to drop to \$1.02 the critical elasticity would be about -0.35. Thus, if a policy of restricting grain output is used, it is necessary to match the level of grain output and government policy influencing grain market prices to the best informed judgment of the elasticity of demand for livestock. Otherwise, the income gains to grain producers may be offset, at least in part, by lower net returns to feeding operations--with any serious miscalculations being reflected by a build up in stocks of grain.

There may be shifts in the proportions of the various classes of livestock and poultry if grain supplies are greatly restricted. For example, broilers may be favored on feed efficiency. There are differences in consumers' willingness to pay higher prices for various classes of livestock. There are varying possibilities for substituting forage crops for feed concentrates. In this case, beef, dairy, and sheep are favored over hogs and poultry.

The difficulty in predicting the effect on profits from livestock when feed grain production is restricted has one fairly clear implication: It would appear that it is possible to set support rates on feed grains at such a high level that the derived demand from livestock feeders would not absorb the available market supply. Under these conditions, government-held stocks could increase rather than be reduced in size.

Income of the Combination Grain-Livestock Producer: Herein, the advantages and disadvantages facing both the cash-grain farmer and the purchaser of feed are incorporated into one farming situation. Grain should be charged to livestock and poultry at the prices which could be received when selling grain for cash. Therefore, the grain-livestock producer must choose the combination of grain and livestock which will give him the largest net returns for his resources.

Effect on Resource Adjustment

A major argument for some type of output-restricting program is that prices will be raised by a greater percentage than the reduction in supply due to the inelastic demand for farm products. This argument assumes that resources are not adjusted rapidly enough under free prices to allow farm people to receive an income comparable to that of nonfarm people.

How efficiently are resources combined under alternative feed grain programs? Under free market conditions, the farmer is free to choose the combination of land, labor, and capital which he finds most economical. With programs to limit land, there is a tendency to increase use of fertilizer, seed and labor in the restricted acreage. Both free prices and the output-reducing programs mentioned herein may prompt a consolidation of farms over some recent programs which offer price supports above the free market level with no limitations on output.

In providing payments for voluntary diversion of land, there is a tendency to remove land which competitive forces would eventually shift out of production. In the voluntary diversion program of 1961, a fixed payment per bushel was offered to producers (based on their historical yields). However, it is likely that profit margins per bushel are much smaller on less productive farms. If the less productive land is retired through a voluntary program, it is the type which will most likely stay out of cultivation if the program were discontinued. On the other hand acreage allotments would tend to reduce the plantings in all areas by the same proportion.

Effect on Production and Price of Other Farm Products

Single crop programs have an interaction with the rest of agriculture.

For example, under some wheat, tobacco and cotton programs of the past, reductions in allotments did not require diversion of excess acreage to conservation uses. Consequently, the resources available for feed grain production were increased. Under recent programs, land diverted from feed grains has been retired from crop production. The free price alternatives allow the farmer to make his own choice of enterprises and combination of resources to produce these enterprises.

Where there is an opportunity for one product to substitute for another in final use, programs to affect the price of one commodity may alter the demand for its substitute. For example, there is considerable substitution between various classes of livestock products as their relative prices change.

Effect on the Agribusiness Sector

The volume of both feed grain and livestock handled by marketers and processors would be less under programs which restrict grain production than under free market conditions. However, the voluntary diversion program of 1961 reduced feed grain output only 5 million tons below the 145 million ton production estimated under free prices.

A drastic reduction in feed grain output would reduce sales of such supplies as fertilizer, seed, insecticide and tractor fuel. However, farmers tend to use more purchased inputs and labor per acre under output-restricting programs.

Grain dealers and storage firms may also be affected by the choice of feed grain policies. While CCC stocks were being accumulated during the 1950's, storage facilities for grain expanded rapidly. However, neither the free market nor output-reducing alternatives analyzed herein project an increase in government-held stocks.

Effects on Government

Effect on Government Costs: Expenditures for diversion payments have been necessary under the recent voluntary diversion program. The change from a \$1.20 price support in 1961 to \$1.07 in 1963 (plus an 18¢ per bushel certificate) may mean an increase in direct government payments during the fiscal year. However, the proportion of new production going under loan, thereby requiring long-run storage costs, may decline in 1963. If current government stocks were disposed of, a purely free-market situation would entail minimal-or no-government costs. A nominal cost for storage programs might be expected when price supports are set at the long-run market average. Due to the detailed regulations required, administrative costs are to be expected to be higher under output-reducing programs.

Ease of Administration: No governmental participation is required for free price program except legislation to abandon price supports and controls and, at the present time, some provisions for reducing current stocks. Where price supports are offered at the long-run market average, a public storage program must be offered to cushion year-to-year fluctuations in grain prices.

The administration of a voluntary diversion program requires that a base acreage be established on each farm along with a productivity index. Farmers must be afforded the opportunity to elect to participate in the diversion program. Payments must be dispersed and some method devised to finance the payments, either by appropriation or sale of existing CCC stocks (as was the case in 1961). Nonrecourse loans are made available to participating farmers.

The difficulty of administration increases with an acreage allotment program since exact land measurement must be made annually. Farmer referenda may be required periodically. Price support and storage activities must be supervised. The more difficult program to administer would be the combination of allotments and voluntary diversions since the administrative requirements of both programs are involved.

Effect on Consumers: Since output-reducing programs would cut livestock production below the level which would result under free prices, consumer costs of meat, eggs and milk would be raised. It is estimated that for every 1 percent reduction in the quantity of meats available, retail prices will rise by 1-2/3 percent. As estimated earlier, feed supplies comparable to those in 1961 would allow livestock output at about $3\frac{1}{4}$ percent below free market production. Using this example, retail meat prices might be expected to rise by

5.4 percent. Meat, dairy, poultry and eggs account for half of the retail cost of the food market basket. Therefore, total food costs might be about 2 percent higher with feed grain production reduced as in 1961, as compared to free market prices.

Political, Social, and Other Economic Effects

Interregional Effects: The program chosen in feed grains and the manner in which it is administered can substantially affect the location of production of grain and livestock. An important advantage of free price programs if extended to all commodities is that production would tend to be located in those regions which can produce the given commodities at the least cost.

In contrast, an acreage allotment program, based upon a historical record of production slows down shifts in location of production. Provisions for transferring allotments, as is now being done on a moderate scale for tobacco and cotton, would allow shifts to more efficient areas.

A voluntary diversion program tends to retire land from feed production in the less efficient areas, since payments would not be as attractive to top producers.

The manner in which the government disposes of its stocks will affect prices between regions. The price required to move these stocks into regions with low production and limited government storage must either be high enough to include transportation charges from the point of storage or involve some technique to share transportation charges. For example, due to a decrease in production in 1961 of corn in North Carolina, the price was 27 cents per bushel higher than in Illinois in December 1961 as compared to only 11 cents spread in December 1960.

Effect on Foreign Trade: Where grain prices may vary from 80 cents (under free market conditions) up to a much higher level (under output-reducing programs), it is obvious that the volume of exports would be larger under the lower priced, free market conditions. Longer-run effects of high U. S. feed grain prices are (1) to permit countries which are less efficient in feed grain production to build up their domestic production under the umbrella of high U. S. prices and (2) to reduce our effectiveness in negotiating with trade blocs where import quotas are used.

Relationship to Social Values: Some of the most controversial debate about policy alternatives for feed grains (or on general agriculture policy, for that matter) hinges around the question of the freedom of the individual. Clearly, the output-reducing alternatives inhibit the farmer's freedom in choice of enterprises to a larger extent than either of the free price alternatives. With voluntary diversions, the degree of freedom is wider than under mandatory acreage allotments.

Economic stability contributes to the goal of society for security. Some degree of security is offered by a program with price supports at the long-run free market level. There is some reason to believe that this forward-pricing technique may even provide for higher yields than found under the more uncertain conditions of a purely free market. Even the program to raise grain prices by restricting output may tend to reduce cyclical variations in livestock production and prices. However, the stability offered to livestock producers occurs through a cost structure fixed permanently above the free market level.

There are substantial social and economic effects when a policy disrupts community life. No doubt, feed grain output would drop substantially in marginal areas under free price conditions. Land values would drop in such communities. The volume of business for many nonfarm firms would be reduced as the farm population declined without other adjustment programs. There would be similar impacts on other economic and social institutions of these communities. At the other extreme, acreage allotments which are based on historical record of production would not allow major shifts in location of production, and in this respect might cushion the shock of drastic changes in the economy. Voluntary diversions may have an intermediate impact on community life since the payments received for diversion may offset some of the economic loss due to a decline in acreage in the less efficient producing areas.

Policy-makers are reluctant to make sudden drastic changes. Even where some degree of production control is implied, there have been various techniques used to soften their impact and improve their political acceptability. At various times, price and income programs for commodities have allowed minimum allotments, exemptions, reserves for hardship cases, permission to exceed allotments for some small penalty such as forfeiture of rights to price supports and (as mentioned in debate on the Food and Agriculture Act of 1962) an exemption of feed grains if the grain was fed to the livestock on the same farm.

SUMMARY

This analysis has considered several alternatives for price and income policy for feed grains and given some details of the 1961 voluntary diversion program as compared to a free market situation.

Before making your choice of the most appropriate policy for feed grains, you may wish to double check if there are other policy alternatives which you think merit detailed study.

There are many criteria which may be used as a yardstick to provide an evaluation of the alternative policies. It is very likely that no single alternative fully meets all the goals which might be desired by society.

Similarly, you may disagree with others on which points are most important in providing an overall evaluation of feed grain alternatives. While the criteria under which the alternatives in this paper have been examined are not necessarily complete, a survey of these points should help you decide your position.

Table II, page 34, provides a tentative ranking (which you may want to revise) of the various alternatives on a number of points. The ranking shows the magnitude on a particular point, not an appraisal of "desirability."

For example, the value of the grain crop is shown to be greater under the three output-reducing alternatives than under the free market alternatives. Of production and market prices under the three control programs, the voluntary diversion approach would offer the larger total income from grain--due to higher government payments to farmers for diverting land. Therefore, this alternative is ranked as (1) on this point. Cash grain producers may appraise this fact as desirable for them; however, purchasers of feed may not find the higher feed costs beneficial.

Some of these points of evaluation will be more important in your final choice among the alternatives than others.

You may wish to revise the rankings particularly if you assume different details under the alternatives than those included in this analysis.

At any rate, the points discussed here are only guides to consider in making your choice.

Table II. Points of Evaluation of Policy Alternatives for Feed Grains 1/

	Programs to Reduce Grain Output			Combination of Allotments and Voluntary Diversions			No Restrictions on Output		
	Voluntary Diversions with Payments	Mandatory Acreage Allotment	Voluntary Diversions	Free Prices	Price Supports at Long-Run Market Average				
<u>Effect of Farming</u>									
Value of crop (inc. payments) 2/	1	3	2	4	4				
Total cash expenses for crop	<u>$\frac{1}{3}$</u>	<u>$\frac{3}{4}$</u>	<u>$\frac{3}{2}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>				
Land costs	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{4}$</u>				
Livestock & poultry numbers	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{4}$</u>				
Livestock & poultry prices	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{4}$</u>				
Feed costs per unit of livestock production	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{4}$</u>				
<u>Effect on Agribusiness</u>									
Volume of business for ag-related industries	<u>$\frac{1}{3}$</u>	<u>$\frac{2}{3}$</u>	<u>$\frac{2}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>				
<u>Effect of Government</u>									
Gov. costs - administrative	3	2	1	5	5				
- storage, payments, etc.	1	3	2	5	5				
Ease of administration	3	4	5	1	1				
<u>Effect on Consumers</u>									
Consumer prices of livestock products	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{4}$</u>	<u>$\frac{1}{4}$</u>				
<u>Social Effects</u>									
Volume of exports at competitive prices	<u>$\frac{4}{3}$</u>	<u>$\frac{4}{5}$</u>	<u>$\frac{4}{4}$</u>	<u>$\frac{4}{4}$</u>	<u>$\frac{1}{1}$</u>				
Farmer freedom in enterprise choice	<u>$\frac{1}{3}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>	<u>$\frac{1}{2}$</u>				

1/ The alternative under which the magnitude is greatest on a particular point is ranked as (1). Underlined ranks 2/ More specific details on the estimated value of the grain crop under various alternatives are shown in Table I.

V. An Analysis of Policy Alternatives for Wheat

by Robert W. Wilcox, Extension Economist ^{1/}
University of Idaho

The problem of wheat supply-demand imbalance is similar to that facing U. S. agriculture in total--production capacity exceeds needs at recent price levels.

Circumstances peculiar to wheat production make the problem more acute for wheat producers than for some others. But the wheat problem cannot be studied in isolation. Resources used for wheat production can be used to produce other crops and livestock, with feed grain the principal alternative.

WHEAT SITUATION

The problem of chronic over-production in agriculture became apparent following World War I. Production, stimulated to meet wartime needs, did not decline following the end of the war and postwar emergency needs. Wheat production reached 1 billion bushels during the war for the first time (1915). While it did not reach that level again until 1944, it was generally in excess of needs.

Wheat output per acre, along with yields of other crops, has increased at a faster rate than the rate of increase in effective demand. As a result, wheat supplies built up rapidly after 1951. Control measures in effect after 1953 and Government-aided export programs--particularly Public Law 480--were not enough to offset the increased yields. The supply buildup was dramatized by the increase in Commodity Credit Corporation stocks.

Carryover Accumulates

Annual production averaged about 50 million bushels greater than utilization during the 1954-1961 period.^{2/} The resulting carryover went largely into CCC stocks. By 1961, CCC owned 1,300 million bushels of wheat. The size of the stocks and the accompanying costs to the Government have become a national concern to farmers, tax-payers, legislators, and administrators.

^{1/} Norbert Dorow, assistant agricultural economist, North Dakota State University, assisted in the development of this section.

^{2/} "Wheat Situation," USDA, June 1962.

The size and cost of CCC stocks--together with increasing yields per acre, stable domestic use, and the possibility of shrinking dollar markets abroad--imply an adjustment is needed in wheat production: fewer resources are needed.

Carryover Varies by Class: Hard red winter wheat makes up the bulk of the carryover in recent years. In contrast, there was a special program in operation in 1962 to increase durum production.

U. S. Wheat Carryover (July 1) by Classes 1/

Year	Total	H.R.W.	S.R.W.	H.R.S.	Durum	White
<u>Mil. Bu.</u>						
1930	291	123	27	88	32	21
1935	146	68	31	26	5	16
1940	280	136	24	82	18	20
1945	279	109	19	112	8	31
1950	425	252	29	86	25	33
1955	1,036	677	50	172	2	135
1960	1,314	1,002	10	218	18	66
1961	1,411	1,104	12	237	20	38
1962 ^{2/}	1,305	1,068	24	187	5	21
1963 ^{2/}	1,225	960	10	195	45	15

1/ "Wheat Situation," USDA, June 1962, and February 1963.

2/ Preliminary

Use of High Yielding Wheat Varieties Encouraged

Two characteristics of price support programs have encouraged the use of high producing types of wheat:

- 1) uniform support levels (somewhat modified in recent years),
- and 2) price support for all wheat grown on the individual farm acreage allotments.

As a result, market price did not fully influence production relative to the demand for particular types of wheat. Regionally, farmers grow the adapted types: hard red winter in the Southern Plains, hard red spring in the Northern Plains, soft red winter in the Corn Belt, soft white in the Pacific Northwest and Northeast, while durum is grown mainly in northeastern North Dakota.

Wheat as Primary Income Base

Wheat is the basic income source in the major wheat producing areas: grain marketing facilities and systems are geared to wheat; land prices reflect income from wheat under existing price support levels, agriculturally related businesses depend on wheat continuing

to be the main income producer; wheat production is important for maintaining a cropland agriculture in many areas and for supporting community services and institutions.

Direct Government Action to Support Wheat Income

Various measures were proposed to alleviate the problem during the 1920's. The Federal Farm Board made the first direct attack on the supply-demand imbalance. Following its failure, Federal price and income support action was undertaken in the mid-30's.

Present Government involvement with wheat traces to the Agricultural Adjustment Act of 1938. It established the basic mechanism of acreage allotment and nonrecourse loans for price and income support of the basic crops, including wheat. This basic policy had not changed materially until passage of the 1962 farm act. The changes are scheduled to go into effect for the 1964 crop.

Acreage Allotments Ineffective in Supply Control: Even with acreage allotments in effect, wheat supplies increased after 1938. Wartime needs shifted the emphasis from production restriction to full scale production--as had happened in World War I. This time, however, the resulting production level was much higher. At the same time, postwar domestic food needs for wheat and barley held--even while other uses declined. Wheat was priced above feed grain use by the support level.

Under the Agricultural Adjustment Act of 1938, wheat acreage was reduced from 80 million in 1938 to 62 million in 1939, and 55 million acres in 1942. Acreage restrictions were then lifted, due to war and postwar needs. Acreage reached an 84 million peak in 1949. The post-war expansion brought marginal range land in the plains into wheat production. Crop acreage in the Great Plains increased by 8.2 million acres. The Korean War brought temporary relief from increasing wheat supplies. However, acreage allotments were reimposed for the 1954 crop.

The legal minimum national allotment of 55 million acres has been in effect since 1954, though cut 10 percent for the 1962 crop. The 1963 acreage allotment is again 55 million acres. A voluntary diversion program was in effect in 1962 and will be in 1963.

A substantial share of the acreage diverted from wheat after 1953 was shifted to feed grain production; it accounted for one-third of the increase in feed grain production between 1952-53 and 1958-59. ^{3/} Farm resources were not adjusted out of agricultural production by the wheat program but were largely redirected to producing other farm commodities.

^{3/} "Farm Production Trends, Prospects and Programs," ERS, USDA, AIB-239, May 1961, p. 32.

Price support for wheat ranged from a low of 52 percent of parity in the 30's to 90 percent of parity between 1944 and 1954. It is set at a postwar low of 75 percent for the 1963 crop.

Congress made a substantial change in the parity formula in 1948, reducing parity for wheat by about 30 cents per bushel. The drop took effect over a period of time, becoming fully effective in 1956.

In addition to the change in the formula, legislation was passed permitting price supports to be set between 75 and 90 percent of parity. However, price supports have remained at high levels (compared with prices of crops that are competitive for resources used in wheat production).

Exports Important

Historically, wheat has been a major export commodity. U.S. exports were reduced to a very low level by the depression of the 30's. In contrast, during the postwar period of world recovery and emergency food needs, U. S. wheat exports increased to more than 500 million bushels in 1948. As the agriculture of war-torn countries recovered, U. S. exports declined to 215 million bushels in 1953. The dollar market has been maintained at about 150 million bushels per year since that time through a Government export subsidy to make U. S. wheat competitive on world markets.

In addition, Congress passed legislation in 1954 permitting sale of certain farm commodities, including wheat, for foreign currencies. The major share of such currencies were to be used for making loans for economic development in the countries involved. This law, (Public Law 480) is a combination of surplus disposal and foreign economic aid. P.L. 480 sales contributed importantly to wheat exports, exceeding 660 million bushels in 1960-61, and 700 million in 1961-62. ^{4/}

Domestic Food Use Constant

Domestic use of wheat as food has changed little since 1935, ranging from 471 to 494 million bushels. Per capita consumption has decreased steadily as population increased.

The Adjustment Problem

The wheat market will not absorb expanding output at the 1962 price level. Domestic human consumption of wheat remains relatively stable and would not increase significantly with lower prices. Commercial export opportunities are limited by trade agreements, strong competition and limited buying power of the underfed peoples of the world. Wheat exports as part of our foreign economic aid program through such devices as P.L. 480 are at a level difficult to maintain or increase. Industrial usage of wheat is small and is expected to continue that way. Use of wheat as livestock feed (prices competitive with feed grains) may be the only other outlet that could expand. However, this would not be welcomed by feed grain producers.

^{4/} "Wheat Situation," USDA, June 1962.

Although acreage decreased one-third between 1953 and 1961, total wheat production in 1958, 1960 and 1961 exceeded that in 1953. Average yields in the U. S. increased from 15.5 bushels per acre in the 1946-50 period to 21.0 bushels per acre in 1956-60. ^{5/} Yields increased most in the Pacific Northwest and Southern Plains, and least in the Northern Plains.

Wheat producers in the wheat areas consistently produce up to the maximum of their acreage allotments, because the returns from wheat--under the price support program--are considerably higher than from alternative crops. Wheat prices would have to drop 25 to 50 percent (with feed grain prices remaining stable) before farmers would shift from wheat to feed grain in the Plains and the Corn Belt. ^{6/}

In the semi-arid regions, wheat is the crop best adapted for long run production plans. Even at feed grain prices, wheat would be the dominant crop in the Great Plains, although grain sorghums would be competitive in parts of the Southern Plains. Forage is the second alternative to wheat on wheat farms. ^{7/}

If the price level should drop sharply, the major effects would probably include a speedup in the recombination of farms (over the rate associated with the 55 million acre minimum acreage allotment.) The price of land would drop, but most of the land would stay in wheat production until wheat prices were low enough for other uses to be competitive.

Grass a Poor Alternative: Shifting cropland to grazing land is an economically painful process. A substantial investment and 3 to 5 years time are normally required to re-grass cropland in the semi-arid regions. Gross income from grass in the foreseeable future will be less than from wheat at 1962 prices. The more extensive type of farming would not support community services and social institutions in some of the major wheat producing areas.

In addition to the cost (in terms of both time and money) of establishing grass, it has an additional disadvantage in areas primarily adapted to wheat. These areas are subject to wide swings in yield per acre of wheat or forage because of weather. Wheat can be completely harvested in the highest yielding years with little extra cash cost over a low yielding year. It appears unlikely that extra forage in a high producing year could be recovered as completely or as advantageously (incomewise). The harvesting would involve

^{5/} "Farm Production Trends, Prospects and Programs," ERS, USDA, AIB 239, May 1961, p. 57.

^{6/} "Wheat Problems and Programs in the U.S." N. Central Reg. Bul. 118, 1960, p. 38.

^{7/} "How Wheat Farmers Would Adjust to Different Wheat Programs," Production Research Report No. 52, ERS, USDA.

livestock and the operator could not continuously maintain a level of livestock to use all the forage in the best year. Increasing his herds at that time would bid up the price of livestock, capitalizing part of the extra forage yield into them. This relationship appears not to have been explored, so no estimate of its significance is available.

In summary, the adjustment problem in the wheat area is difficult because of the comparative advantage enjoyed by wheat over other grains or grasses. For this reason, it appears to be more intense than the adjustment problem facing the rest of U. S. agriculture. In the short run, resources tend not to move out of agriculture because the land, labor and capital in facilities have no ready alternative use. Moreover, in some areas, there may be no satisfactory alternative to wheat even in the longer run without severe drops in farm income.

ALTERNATIVE POLICIES

Proposals for alleviating the farm problem are numerous. Some apply to specific commodities such as wheat, as well as to the aggregate problem. Farm programs adopted by Congress usually include a combination of types of action.

For purposes of this discussion, three alternatives having definite implications for wheat will be considered. Comparison will be made to the wheat program in effect under legislation providing for a 55 million acre minimum wheat acreage allotment. This minimum was in effect for wheat crops after 1954, although modified for the 1962 crop, and eliminated for 1964 and later crops by the 1962 Farm Law.

The alternatives to be discussed are:

- A. Acreage allotments, marketing quotas and voluntary acreage diversion.
- B. Marketing quotas, acreage allotments and marketing certificates.
- C. Free Prices.

Alternatives A and B are designed to support prices by reducing output. Alternative C would rely on free prices, perhaps supplemented by some government actions, to promote adjustments in wheat production and marketing.

Basic Assumptions of the Wheat Policy Alternatives

One basic assumption will apply to the three policy proposals examined in this section: The U. S. will continue to sell wheat under P.L. 480 as part of our foreign aid program.

At the same time, certain peculiarities of wheat production and markets must be kept in mind. These include:

- 1) the lack of a close alternative to wheat in many of the major wheat producing areas;
- 2) feed grains are the best alternative to wheat;
- 3) grass is a poor alternative to wheat in the principal wheat producing areas;
- 4) total domestic food use of wheat is practically stationary;
- 5) wheat yields per acre are increasing; and
- 6) commercial wheat exports do not appear likely to increase.

The criteria outlined in paper II will be applied to each of the three policy alternatives for wheat. In order to apply the criteria, the assumptions for each policy proposal are listed.

A. Acreage Allotments, Marketing Quotas and Voluntary Acreage Diversion:

Assumptions are:

- 1) Acreage allotments will be in effect.
- 2) Exceeding the acreage allotment will bring loss of support. If quotas are in effect, it will also bring penalties.
- 3) Payment is offered on voluntary wheat acreage diversion.
- 4) Diverted land must be retired from crop production to receive payment.
- 5) Government-held stocks will be gradually released at market price. Some minimum wheat acreage can be grown for feed without allotment or penalty but must be used on farm where grown.

B. Marketing Quotas, Acreage Allotments, Diversion Payments and Marketing Certificates: Under this program, the same assumptions as were made under alternative "A" would apply. The following further assumptions are made:

- 1) A national marketing quota in bushels, will be set annually to reflect need--based on domestic and export use, minus imports and reduction in CCC stocks.
- 2) A national acreage allotment will be set annually, based on the year's marketing quota in bushels and expected yield per acre.
- 3) Price supports will be associated with bushel quotas, nationally and on the farm. Marketing certificates to be used as the device to provide price support if a variable level, based on use, is desired.
- 4) Farm wheat acreage allotments would reflect each farm's share of national wheat marketing quotas.

- 5) Farm wheat marketing quota in bushels. Support at feed grain prices for wheat produced on allotment in excess of bushel quota.
- 6) Diversion payments on mandatory acreage diversion below current 55 million-acre allotment (as determined from the national acreage allotment).

C. Free Prices with no restrictions on production: The assumptions are:

1. No acreage allotments or quantity restrictions.
2. No storage of grain except through private channels.
3. Price of wheat determined by the relationship of supply to demand.
4. Government stocks would not enter into domestic markets but would be worked off in an orderly fashion in 7-10 years.

The analysis of this type program is adapted from the projections to 1965 for the United States as shown in the "Ellender Report." ^{8/} By using projections to this date, the effects of free prices would be more complete than in the first year of using this approach.

EVALUATION OF ALTERNATIVE WHEAT PROGRAMS

Supply control proposals, such as "A" and "B" above consistently include a provision for a grower referendum. The choice is between a certain level of restriction on production, coupled with a fairly high level of price support, or a lesser restriction on production, coupled with a lower price support level. The alternatives are generally weighted, incomewise, to favor the more restrictive, higher support level alternative. Accordingly, major attention in this discussion is given to that alternative. The result of an unfavorable referendum vote would be a move toward the free price alternative, although this could be obscured by the handling of government stocks.

With supply control measures such as "A" and "B", the lower level of production to be achieved is distributed according to past production patterns. However, the base built up by producers, taking advantage of the 15-acre exemption in effect for several years, would be honored in distributing this national acreage allotment. In effect, this dilutes the base of other producers to some degree.

Wheat programs designed to maintain domestic prices above the world level will involve an export subsidy to keep U. S. wheat competitive. The amount of the subsidy becomes a concern to other

^{8/} More details of this proposal are shown in "Farm Price and Income Projections, 1960-65, Under Conditions Approximating Free Production and Marketing of Agricultural Commodities," Senate Document No. 77, 86th Congress, 2nd Session, January 20, 1960.

exporting nations. At the same time, the more restrictive the U. S. wheat program, the more opportunity may be afforded competing wheat producing countries to expand production.

A. Acreage Allotments and Voluntary Acreage Diversion

This type program, comparable to the one in effect for the 1962 crop, assumes that the 55 million-acre legal minimum acreage allotment in effect from 1955-61 (and for 1963) is larger than needed. A smaller national acreage allotment based on current utilization would be established. Diversion below this level to allow for reducing CCC stocks or increasing yield levels would be accomplished through voluntary diversion, accompanied by incentive payments. Stocks can be reduced through this procedure if diversion payments are adequate.

The price support level would determine the diversion payment level needed to achieve voluntary land retirement. The lower the price support level, the lower the diversion payment needed, the lower the export subsidy needed to maintain exports, and the lower the cost to the government. Utilization would be affected little so long as wheat was supported above feed grain prices.

Effects on Farmers: Support rates lower than those for 1962, coupled with diversion payments just large enough to attract diversion, would adversely affect farm income, if yields remained unchanged. If the objectives were to maintain wheat farmer's income and reduce government cost, a conflict might develop. Acreage reductions, sufficient to reduce production to the point that wheat prices would rise above 1962 supports, would be so severe that this does not appear to be a serious possibility.

This type program can be administered effectively as indicated by its use in 1962. It would tend to continue the present production allocation by regions. A drop in the wheat price support to levels which might bring about a shift to feed grains in some areas where feed grains are a fair alternative seems unlikely. Research studies indicate the drop would have to be substantial even in areas where feed grains are most competitive with wheat. 9/

Adjustments in farm size in the wheat areas would continue as in the past, although a lower price level might speed it up slightly. Voluntary acreage diversion would permit individual farmers to make adjustments beneficial to themselves and to the aggregate problem. For example, a beef ranch with a small wheat base might economically divert the entire acreage. The diversion payments would provide income during the years required to establish grass. Older farmers on small farms with no income alternative could reduce output and still continue living in the community.

9/ "How Wheat Farmers Would Adjust to Different Programs," Production Research Report No. 52, ERS, USDA, May 1961.

Wheat producers in areas with no satisfactory alternative crop (including grass) would be left dependent on price supports and/or diversion payments for income maintenance. This program does not attack directly the problem of excess resources maintained in wheat production or readily brought in at the support level contemplated.

Other Effects: The effect of such a program on agriculturally related industries would parallel its effect on farm income, and its effect on acreage and level of production. Storage and transportation firms, for example, are particularly sensitive to changes in physical volume of production. Machinery sales and service businessmen are interested in the acreage in production.

The level of price support involved will have a minor effect on consumer prices for wheat products. Typically, wheat products at the consumer level include substantial processing cost. The value of the raw material is low relative to retail prices.

B. Marketing Quotas, Marketing Certificates and Diversion Payments

Proposals for tight supply control have usually included a control of marketings since it is impossible to set exact production levels in advance. Weather causes wide variations in yield per acre. For example, the U. S. spring wheat yield in 1961 was 15.1 bu. per acre--but was 26.6 bu. per acre in 1962. Durum wheat yields went from 12.3 bu. per acre in 1961 to 29.7 bu. per acre in 1962. ^{10/}

Under proposals of this type, a national marketing quota would be established on the basis of expected usage, adjusted for desired variation in carryover. Here a policy decision regarding P.L. 480 sales would have to be made: Are they to be regularly included in utilization or only dollar exports? If they are included, is the farmer to receive the same support level for that portion of total utilization?

Effects on Farmers: The national marketing quota would be translated into a national acreage allotment on the basis of expected yields. Each farm would receive its share of the national allotment based on its acreage history, and a bushel quota based on expected yields on the allotment.

A farmer may have two kinds of wheat at harvest time:

1. Quota Wheat -- his acreage allotment times the normal or expected yield assigned to his farm, and
2. Non-quota Wheat -- the amount that actual production on his allotment exceeds the expected or normal production.

^{10/} "Crop Production," Crop Reporting Board, USDA, August 1962.

Leaving non-quota wheat with a low--or no--support would effectively reduce the incentive to invest in purely yield-increasing practices. It would be in direct contrast to support programs that provide for support on all wheat grown on the farm allotment.

The price support level, diversion payments, and size of marketing quota would determine the effect on farm income. The income level under this plan is dependent on legislative and administrative decisions.

To prevent a shift of land going out of wheat and into feed grain production, restrictions would have to be imposed on its use, with or without compensation.

The effects of this proposal on land use and social adjustments depend on the rigidities of the marketing quotas. If they were tied to the farm, the present distribution of wheat production would tend to remain static, with the value of the quota capitalized into the farm itself. If the quotas were negotiable, their value would also be capitalized. In this case, land values (as such) would drop if the total capitalized value of the land and quota were the same as the previous value of the land alone. Negotiability would permit more flexibility of adjustments in land use and human resources. So long as income from wheat were held above income from the land in other uses, land diverted from wheat would be returned to wheat production at the first opportunity. Land values would continue to be tied to wheat. Declines in income from wheat that would be associated with a drop in the support level or in diversion payments would be reflected in lower land values.

Other Effects: Agriculturally related industries, particularly those associated with volume of wheat production, would be adversely affected. As adjustments took place, community services and organizations would be adversely affected in the main wheat areas.

Consumer prices would feel little impact of such a program because the cost of wheat is a relatively small proportion of the retail price.

Multiple-Price System

The multiple-price system proposed for wheat since the 1920's is a variation of alternative B. The proposal could be developed to provide a different support level for the several possible outlets for wheat: domestic human consumption, feed, seed, industrial use and export. The wheat section of the 1962 Food and Agriculture Act is an example of this type.

If the domestic price is to be supported above world price levels--or if the desire is to split the domestic market according to use--some means is needed to separate wheat according to outlet. Mechanics of price support under such a program include marketing certificates with different values for different use classes. The effect on

exports and on international relations would not necessarily be different than it has been for several years. Export subsidies have, in effect, given us a two-price system. Relationships with other countries would depend basically on the administrative determination of the world price for wheat--a problem that would be the same as it has been whenever an export subsidy was used.

Wheat growers will find the program more difficult to apply to their individual situation with the introduction of wheat marketing certificates. The difficulty will increase when certificates are available for less than the farm's bushel quota or when the certificates have values varying with use classes.

Wheat marketing certificates might be used to facilitate resource adjustments, if certificates were used on only part of total production, such as for domestic food use. Additional wheat production would then compete with other crops for production resources, on the basis of comparative returns. At the same time, wheat producers' incomes would be partially protected from the severe drop that would accompany free prices for all wheat.

C. Free Prices

Wheat producers generally would have lower income under free prices and unrestricted production. 11/ In addition, there would be the problem of stock disposal. If stocks were worked off over a period of time through P.L. 480 sales, their impact on the income of U.S. wheat farmers could be minimized, if not eliminated.

Effects on Farmers: Resource adjustment would take place as indicated by the relative profitability of wheat and other commodities. However, the wide gap between income from wheat at 1962 prices and at free prices would be accompanied by sharp pressure on land values, farm income, community services and agriculturally related businesses. Such effects provide the basis for strong resistance--by both farmers and businessmen associated with wheat farming--to reliance on free prices to regulate wheat production.

Feed grain producers would feel increased competition from wheat on a free price basis. There might be some decline in feed grain produced by wheat farmers but total grain production would rise. Livestock production could be expected to increase in wheat areas as wheat became available at feed prices.

Other Effects: The effects on international trade are uncertain. On the one hand, free prices would make U. S. wheat more competitive with wheat from other areas, tending to increase exports. On the other

11/ More details of this proposal are shown in "Farm Price and Income Projections, 1960-65, Under Conditions Approximating Free Production and Marketing of Agricultural Commodities," Senate Document No. 77, 86th Congress, 2nd Session, January 20, 1960.

hand, major importing nations, such as West Germany, have incentive programs for their domestic producers that they could be expected to protect. 12/ In fact, nearly all important wheat countries have used government price support systems for years to control producer prices for wheat.

The International Wheat Agreement and other existing international arrangements would prevent expansion of U. S. exports--regardless of how low U. S. wheat prices were--while consumers in countries like West Germany would gain no benefit from it.12/

The major wheat exporters, Canada and Australia, are friendly nations. Low U. S. wheat prices would increase frictions between them and the U. S., weakening our position in the cold war with the Communist Bloc.

Government costs for direct action would decline to a low level, the level depending on the action taken to dispose of government stocks and whether such programs as the conservation reserve were continued at a level to divert land from wheat production.

SUMMARY

This analysis has considered three major policy alternatives for wheat. Before making your choice you may wish to consider whether there are other alternatives that merit detailed study or whether there are specific assumptions that should be added to these to make them more realistic.

There are many criteria that could be used in evaluating alternative policies. No single alternative is likely to meet all the goals of our entire society. Individuals will differ in their views on the points most important in evaluating wheat policy alternatives. While the criteria used in this discussion are not necessarily complete, they should be useful to you in comparing alternatives.

12/ "Common Market Adopts New Grain Trade Rules," FAS, USDA, F6 11-62, August 1962.



